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|----------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|---|---|
| Human | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | | | |
| Gorilla | M | A | N | L | G | C | W | M | L | V | L | F | V | A | T | W | S | D | L | G | L | C | K | K | R | P | K | P | G | G | W | N | T | G | G | S | R | | | |
| Chimpanzee | M | A | N | L | G | C | W | M | L | V | L | F | V | A | T | W | S | D | L | G | L | C | K | K | R | P | K | P | G | G | W | N | T | G | G | S | R | | | |
| Mouse | M | A | N | L | G | C | W | M | L | V | L | F | V | A | T | W | S | D | L | G | L | C | K | K | R | P | K | P | G | G | W | N | T | G | G | S | R | | | |
| Rat | M | A | N | L | G | C | W | M | L | V | L | F | V | A | T | W | S | D | L | G | L | C | K | K | R | P | K | P | G | G | W | N | T | G | G | S | R | | | |
| Syrian Hamster | M | A | N | L | S | Y | W | L | L | A | L | F | V | A | M | W | T | D | V | G | L | C | K | K | R | P | K | P | G | G | W | N | T | G | G | S | R | | | |
| Mink | M | V | K | S | H | I | G | S | W | L | L | V | L | F | V | A | M | W | S | D | I | G | F | C | K | K | R | P | K | P | G | G | G | W | N | T | G | G | S | R |
| Sheep | M | V | K | S | H | I | G | S | W | L | L | V | L | F | V | A | M | W | S | D | I | G | F | C | K | K | R | P | K | P | G | G | G | W | N | T | G | G | S | R |
| Goat | M | V | K | S | H | I | G | S | W | L | L | V | L | F | V | A | M | W | S | D | V | G | L | C | K | K | R | P | K | P | G | G | G | W | N | T | G | G | S | R |
| Cow | M | V | K | S | H | I | G | S | W | L | L | V | L | F | V | A | M | W | S | D | V | G | L | C | K | K | R | P | K | P | G | G | G | W | N | T | G | G | S | R |
| Greater Kudu | M | V | K | S | H | I | G | S | W | L | L | V | L | F | V | A | M | W | S | D | V | G | L | C | K | K | R | P | K | P | G | G | G | W | N | T | G | G | S | R |

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| Human | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 |
| Gorilla | Y | P | G | G | G | S | P | G | G | N | R | Y | P | P | Q | G | G | G | G | W | G | G | P | H | G | G | G | W | G | G | P | H | G | G | G | W | G | G | P | H |
| Chimpanzee | Y | P | G | G | G | S | P | G | G | N | R | Y | P | P | Q | G | G | G | G | W | G | G | P | H | G | G | G | W | G | G | P | H | G | G | G | W | G | G | P | H |
| Mouse | Y | P | G | G | G | S | P | G | G | N | R | Y | P | P | Q | G | G | G | G | W | G | G | P | H | G | G | G | W | G | G | P | H | G | G | G | W | G | G | P | H |
| Rat | Y | P | G | G | G | S | P | G | G | N | R | Y | P | P | Q | G | G | G | G | W | G | G | P | H | G | G | G | W | G | G | P | H | G | G | G | W | G | G | P | H |
| Syrian Hamster | Y | P | G | G | G | S | P | G | G | N | R | Y | P | P | Q | G | G | G | G | W | G | G | P | H | G | G | G | W | G | G | P | H | G | G | G | W | G | G | P | H |
| Mink | Y | P | G | G | G | S | P | G | G | N | R | Y | P | P | Q | G | G | G | G | W | G | G | P | H | G | G | G | W | G | G | P | H | G | G | G | W | G | G | P | H |
| Sheep | Y | P | G | G | G | S | P | G | G | N | R | Y | P | P | Q | G | G | G | G | W | G | G | P | H | G | G | G | W | G | G | P | H | G | G | G | W | G | G | P | H |
| Goat | Y | P | G | G | G | S | P | G | G | N | R | Y | P | P | Q | G | G | G | G | W | G | G | P | H | G | G | G | W | G | G | P | H | G | G | G | W | G | G | P | H |
| Cow | Y | P | G | G | G | S | P | G | G | N | R | Y | P | P | Q | G | G | G | G | W | G | G | P | H | G | G | G | W | G | G | P | H | G | G | G | W | G | G | P | H |
| Greater Kudu | Y | P | G | G | G | S | P | G | G | N | R | Y | P | P | Q | G | G | G | G | W | G | G | P | H | G | G | G | W | G | G | P | H | G | G | G | W | G | G | P | H |

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|----------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|---|---|---|---|---|---|---|---|
| Human | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | | | | | | | | | |
| Gorilla | G | G | G | W | G | G | P | H | G | G | G | W | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G |
| Chimpanzee | G | G | G | W | G | G | P | H | G | G | G | W | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | |
| Mouse | G | G | G | W | G | G | P | H | G | G | G | W | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | |
| Rat | G | G | G | W | G | G | P | H | G | G | G | W | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | |
| Syrian Hamster | G | G | G | W | G | G | P | H | G | G | G | W | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | |
| Mink | G | G | G | W | G | G | P | H | G | G | G | W | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | |
| Sheep | G | G | G | W | G | G | P | H | G | G | G | W | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | |
| Goat | G | G | G | W | G | G | P | H | G | G | G | W | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | |
| Cow | G | G | G | W | G | G | P | H | G | G | G | W | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | |
| Greater Kudu | G | G | G | W | G | G | P | H | G | G | G | W | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | G | |

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Fig. 1A

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|---|
| Human | 100 | 110 | 111 | 112 | 91 | 114 | 115 | 116 | 117 | 118 | 119 | 120 | 121 | 122 | 123 | 124 | 125 | 126 | 127 | 128 | 129 | 130 | 131 | 132 | 133 | 134 | 135 | 136 | 137 | 138 | 139 | 140 | 141 | 142 | 143 | 144 | 145 | 146 | 147 | 148 | | |
| Gorilla | M | K | H | M | A | G | A | A | A | A | G | A | V | V | G | G | L | G | Q | Y | M | L | Q | S | A | M | S | R | P | I | I | I | H | F | Q | S | D | Y | E | D | R | |
| Chimpanzee | M | K | H | M | A | G | A | A | A | A | G | A | V | V | G | G | L | G | Q | Y | M | L | Q | S | A | M | S | R | P | I | I | I | H | F | Q | S | D | Y | E | D | R | |
| Mouse | L | K | H | V | A | G | A | A | A | A | G | A | V | V | G | G | L | G | Q | Y | M | L | Q | S | A | M | S | R | P | I | I | I | H | F | Q | S | D | Y | E | D | R | |
| Rat | L | K | H | M | V | A | G | A | A | A | A | G | A | V | V | G | G | L | G | Q | Y | M | L | Q | S | A | M | S | R | P | I | I | I | H | F | Q | S | D | Y | E | D | R |
| Syrian Hamster | M | K | H | M | A | G | A | A | A | A | G | A | V | V | G | G | L | G | Q | Y | M | L | Q | S | A | M | S | R | P | I | I | I | H | F | Q | S | D | Y | E | D | R | |
| Mink | M | K | H | M | A | G | A | A | A | A | G | A | V | V | G | G | L | G | Q | Y | M | L | Q | S | A | M | S | R | P | I | I | I | H | F | Q | S | D | Y | E | D | R | |
| Sheep | M | K | H | V | A | G | A | A | A | A | G | A | V | V | G | G | L | G | Q | Y | M | L | Q | S | A | M | S | R | P | I | I | I | H | F | Q | S | D | Y | E | D | R | |
| Goat | M | K | H | V | A | G | A | A | A | A | G | A | V | V | G | G | L | G | Q | Y | M | L | Q | S | A | M | S | R | P | I | I | I | H | F | Q | S | D | Y | E | D | R | |
| Cow | M | K | H | V | A | G | A | A | A | A | G | A | V | V | G | G | L | G | Q | Y | M | L | Q | S | A | M | S | R | P | I | I | I | H | F | Q | S | D | Y | E | D | R | |
| Greater Kudu | M | K | H | V | A | G | A | A | A | A | G | A | V | V | G | G | L | G | Q | Y | M | L | Q | S | A | M | S | R | P | I | I | I | H | F | Q | S | D | Y | E | D | R | |

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|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Human | 149 | 150 | 151 | 152 | 153 | 154 | 155 | 156 | 157 | 158 | 159 | 160 | 161 | 162 | 163 | 164 | 165 | 166 | 167 | 168 | 169 | 170 | 171 | 172 | 173 | 174 | 175 | 176 | 177 | 178 | 179 | 180 | 181 | 182 | 183 | 184 | 185 | 186 | 187 | 188 |
| Gorilla | Y | Y | R | E | N | M | H | R | Y | P | N | Q | V | Y | Y | R | P | M | D | Q | Y | S | N | Q | N | N | F | V | H | D | O | V | N | I | T | I | K | Q | H | T |
| Chimpanzee | Y | Y | R | E | N | M | H | R | Y | P | N | Q | V | Y | Y | R | P | M | D | Q | Y | S | N | Q | N | N | F | V | H | D | O | V | N | I | T | I | K | Q | H | T |
| Mouse | Y | Y | R | E | N | M | H | R | Y | P | N | Q | V | Y | Y | R | P | M | D | Q | Y | S | N | Q | N | N | F | V | H | D | O | V | N | I | T | I | K | Q | H | T |
| Rat | Y | Y | R | E | N | M | H | R | Y | P | N | Q | V | Y | Y | R | P | M | D | Q | Y | S | N | Q | N | N | F | V | H | D | O | V | N | I | T | I | K | Q | H | T |
| Syrian Hamster | Y | Y | R | E | N | M | H | R | Y | P | N | Q | V | Y | Y | R | P | M | D | Q | Y | S | N | Q | N | N | F | V | H | D | O | V | N | I | T | I | K | Q | H | T |
| Mink | Y | Y | R | E | N | M | H | R | Y | P | N | Q | V | Y | Y | R | P | M | D | Q | Y | S | N | Q | N | N | F | V | H | D | O | V | N | I | T | I | K | Q | H | T |
| Sheep | Y | Y | R | E | N | M | H | R | Y | P | N | Q | V | Y | Y | R | P | M | D | Q | Y | S | N | Q | N | N | F | V | H | D | O | V | N | I | T | I | K | Q | H | T |
| Goat | Y | Y | R | E | N | M | H | R | Y | P | N | Q | V | Y | Y | R | P | M | D | Q | Y | S | N | Q | N | N | F | V | H | D | O | V | N | I | T | I | K | Q | H | T |
| Cow | Y | Y | R | E | N | M | H | R | Y | P | N | Q | V | Y | Y | R | P | M | D | Q | Y | S | N | Q | N | N | F | V | H | D | O | V | N | I | T | I | K | Q | H | T |
| Greater Kudu | Y | Y | R | E | N | M | H | R | Y | P | N | Q | V | Y | Y | R | P | M | D | Q | Y | S | N | Q | N | N | F | V | H | D | O | V | N | I | T | I | K | Q | H | T |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Human | 189 | 190 | 191 | 192 | 193 | 194 | 195 | 196 | 197 | 198 | 199 | 200 | 201 | 202 | 203 | 204 | 205 | 206 | 207 | 208 | 209 | 210 | 211 | 212 | 213 | 214 | 215 | 216 | 217 | 218 | 219 | 220 | 221 | 222 | 223 | 224 | 225 | 226 | 227 |
| Gorilla | V | T | T | T | T | K | G | E | N | F | T | E | T | D | V | K | M | M | E | R | V | V | E | O | M | C | I | T | Q | Y | E | R | E | S | Q | A | Y | Y | Q |
| Chimpanzee | V | T | T | T | T | K | G | E | N | F | T | E | T | D | V | K | M | M | E | R | V | V | E | O | M | C | I | T | Q | Y | E | R | E | S | Q | A | Y | Y | Q |
| Mouse | V | T | T | T | T | K | G | E | N | F | T | E | T | D | V | K | M | M | E | R | V | V | E | O | M | C | I | T | Q | Y | E | R | E | S | Q | A | Y | Y | Q |
| Rat | V | T | T | T | T | K | G | E | N | F | T | E | T | D | V | K | M | M | E | R | V | V | E | O | M | C | I | T | Q | Y | E | R | E | S | Q | A | Y | Y | Q |
| Syrian Hamster | V | T | T | T | T | K | G | E | N | F | T | E | T | D | V | K | M | M | E | R | V | V | E | O | M | C | I | T | Q | Y | E | R | E | S | Q | A | Y | Y | Q |
| Mink | V | T | T | T | T | K | G | E | N | F | T | E | T | D | V | K | M | M | E | R | V | V | E | O | M | C | I | T | Q | Y | E | R | E | S | Q | A | Y | Y | Q |
| Sheep | V | T | T | T | T | K | G | E | N | F | T | E | T | D | V | K | M | M | E | R | V | V | E | O | M | C | I | T | Q | Y | E | R | E | S | Q | A | Y | Y | Q |
| Goat | V | T | T | T | T | K | G | E | N | F | T | E | T | D | V | K | M | M | E | R | V | V | E | O | M | C | I | T | Q | Y | E | R | E | S | Q | A | Y | Y | Q |
| Cow | V | T | T | T | T | K | G | E | N | F | T | E | T | D | V | K | M | M | E | R | V | V | E | O | M | C | I | T | Q | Y | E | R | E | S | Q | A | Y | Y | Q |
| Greater Kudu | V | T | T | T | T | K | G | E | N | F | T | E | T | D | V | K | M | M | E | R | V | V | E | O | M | C | I | T | Q | Y | E | R | E | S | Q | A | Y | Y | Q |

Fig. 1B

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|-----|-----|-----|-----|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|-----|-----|-----|-----|-----|---|---|
| | 228 | 229 | 230 | 231 | | 232 | 233 | 234 | 235 | 236 | 237 | 238 | 239 | 240 | 241 | 242 | 243 | 244 | 245 | 246 | 247, 248 | 249 | 250 | 251 | 252 | 253 | | |
| Human | R | R | G | S | S | | M | V | L | F | S | S | P | P | V | I | L | L | I | S | F | L | I | F | L | I | V | Q |
| Gorilla | R | R | G | S | S | | M | V | L | F | S | S | P | P | V | I | L | L | I | S | F | L | I | F | L | I | V | Q |
| Chimpanzee | R | R | G | S | S | | M | V | L | F | S | S | P | P | V | I | L | L | I | S | F | L | I | F | L | I | V | Q |
| Mouse | R | R | R | S | S | S | T | V | L | F | S | S | P | P | V | I | L | L | I | S | F | L | I | F | L | I | V | Q |
| Rat | R | R | R | S | S | | A | V | L | F | S | S | P | P | V | I | L | L | I | S | F | L | I | F | L | I | V | Q |
| Syrian Hamster | R | R | R | S | S | | A | V | L | F | S | S | P | P | V | I | L | L | I | S | F | L | I | F | L | I | V | Q |
| Mink | R | R | Q | A | S | | A | I | L | F | S | S | P | P | V | I | L | L | I | S | F | L | I | F | L | I | V | Q |
| Sheep | R | R | Q | A | S | | V | I | L | F | S | S | P | P | V | I | L | L | I | S | F | L | I | F | L | I | V | Q |
| Goat | R | R | Q | A | S | | V | I | L | F | S | S | P | P | V | I | L | L | I | S | F | L | I | F | L | I | V | Q |
| Cow | R | R | Q | A | S | | V | I | L | F | S | S | P | P | V | I | L | L | I | S | F | L | I | F | L | I | V | Q |
| Greater Kudu | R | R | G | A | S | | V | I | L | F | S | S | P | P | V | I | L | L | I | S | F | L | I | F | L | I | V | Q |

Fig. 1C

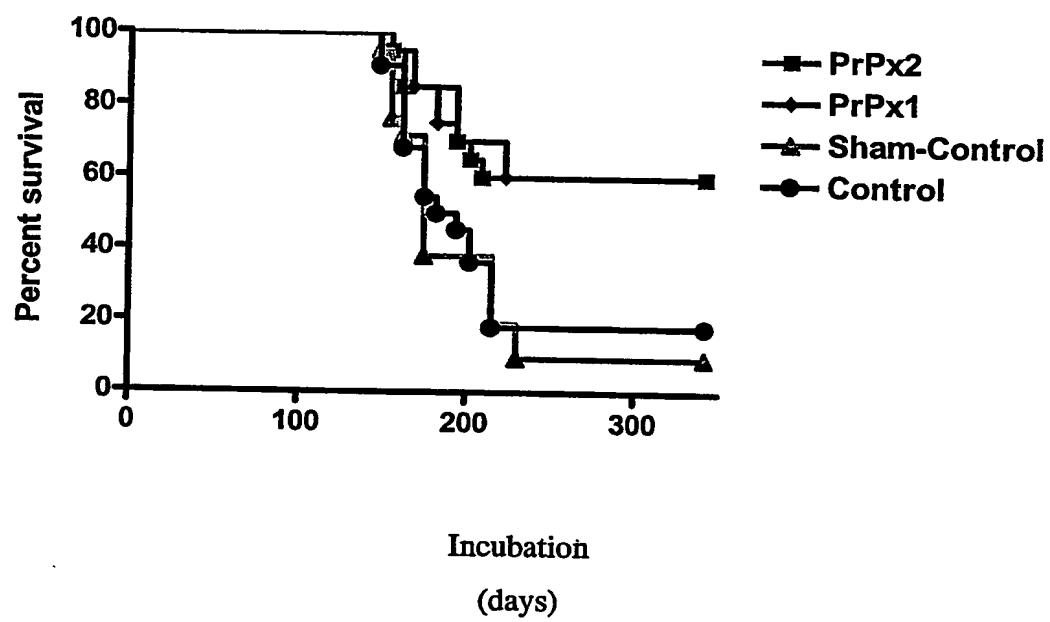


Fig. 2

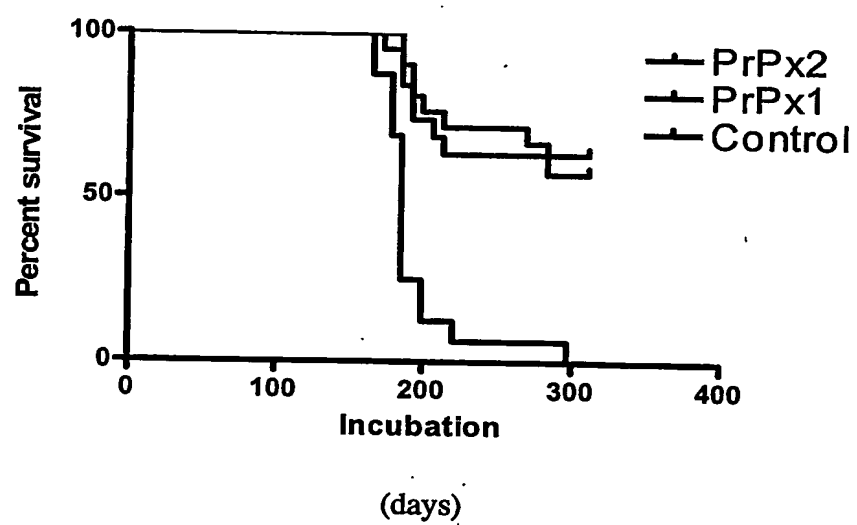


Fig. 3

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